

Document Control No. Link-11 2.2.2.0:VDD.1

**Version Description Document for
the Link-11 Segment, Version 2.2.2.0 for
the Global Command and Control System (GCCS), Version 2.2**

3 March 1997

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1.0 System Overview

The Link-11 Segment, Version 2.2.2.0 provides the functionality described in section 2.2, Software Changes. The Link-11 Segment, Version 2.2.2.0 was developed to run with Unified Build, Version 3.0.1.6G, in the Global Command and Control System (GCCS), Version 2.2.

The Link-11 Segment, Version 2.2.2.0 *must* be loaded on the TDBM Master and should also be loaded on any machine where you wish to view Link-11 tracks. Failure to load the Link-11 Segment, Version 2.2.2.0 on a machine will result in an inability to view Link-11 tracks.

The Link-11 2.2.2.0 software for GCCS 2.2 currently supports only passive Link-11 taps in Indian-Head/ADSI or EDO format. Active two-way Link-11 capability is a planned enhancement.

2.0 Version Description

The following subsections describe the Link-11 Segment, Version 2.2.2.0:

2.1 Inventory of Materials Released

The following physical media and associated documentation make up the JTAV/GCCS 2.2 Interface Client Software, Version 1.0.1.0:

- Link-11 Segment, Version 2.2.2.0 tape.
- *Version Description Document (VDD) for Link-11 Segment, Version 2.2.2.0 for the Global Command and Control System, Version 2.2.*

2.2 Software Changes

The following functionality is available via the Link-11 Segment, Version 2.2.2.0:

- Add capability to use stereographic projection when computing LAT/LONG. This capability is to be used when receiving Link-11-IH-format tracks from ADSI.
- Extend channel edit program to also handle serial.
- Eliminate the need to have separate executables for passive vice active.
- Add support for Extended Range Link-11.
- Implement usage of real world, live training, and simulated default track types.

- When the program is in passive mode, the right-button options for Emergency, Force Tell, and Request 19-bit Track Number are all active. These should not be active, since there is no chance for these options to be used.
- Remove OS (compiler) dependency for Link-11 implementation tables.
- Only change global data on postinstall/deinstall if on TDBM master.
- Problem corrected: The interface detects an EOF on a serial read, resets the interface and continues operation when it should close and reopen the channel.
- Problem corrected: AOP axis is not converted to/from 95%. Operator display of semi major/minor throughout UB is 90%. Since Link-11 is 95%, a conversion needs to be applied on transmit and on receive.
- Problem corrected: Multots system transmitted an ASW track with a Class Amp value that is DM'd. UB did not display the ASW track. UB DM'd both the M84a and the M4a.
- Problem corrected: The report DTG applies only to the time the entered position was valid. Do not update the report DTG field when any other parametric information is updated (CUS/SPD, ID, IFF, etc.). Update the report DTG only when the positional data is modified.
- Problem corrected: A received reference sonobuoy is displayed with the correct symbol on the chart, but the AMP data displays the window for the real world: View PU track report with CAT = AIR and UNIT = VP vice the SONO window. All data related to the SONO is lost.
- Problem corrected: Didn't receive or display the time lost. Reference USCG-1-034 in the Classified Supplement to the INRI/USCG Developmental Program Test Analysis Report.
- Problem corrected: Track timelate can be zero vice age based on the observation time. Since these are non-real time tracks for subs the observation time is needed to create the exact time of the data, otherwise solutions will be incorrect.
- Problem corrected: Received M11B with fuel and TTB incorrectly processed. If TTB is by itself, it is displayed okay. If fuel is received, it never is displayed. (OK, OS411.2.8.5B) If both are sent, fuel doesn't show up and TTB is displayed incorrectly. Reference: OSS 411.2 Para & Page No: 8.5B.
- Problem corrected: The system is incorrectly processing the received time on ASW summary contacts.
- Problem corrected: Remove assigning based on TQ for RX tracks.

- Problem corrected: When multots sends torpedo alert, the system processes it as an unknown subsurface track vice discarding the messages.
- Problem corrected: UB transmits an AOP 50x50 and NCTSI receives it as 44x44, which is okay. NCTSI sends us an ellipse AOP 50x50, and we receive it as 56x56, which is okay. NCTSI sends us a rectangle AOP 50x50, and we display it as 28x28.16, which is not correct. It should be 56x56.
- Problem corrected: RUs 162 and 163 are displayed as surface vice land sites. RU 161 is displayed correctly.
- Problem corrected: Repositioned the special point. When the new position was transmitted, the time switch was not changed to one that showed that this update is an update vice the initial observation. Reference OS 411.2 Appendix F for M85 Note 5.
- Problem corrected: Receiving an M6C message causes Link-11-Active to crash. Receive new ESM track. Receive Emitter number. Receive Platform number. Receiving PRF causes system to crash.
- Problem corrected: Track delete from Link Edit Window is not deleting tracks. Created Link track and saved it. Double clicked on Track window to get Edit Window. Used right mouse button and selected DELETE option. Window cleared by track is not deleted.
- Problem corrected: AOP major and minor axis values are not calculated correctly. AOP conversion from receipt to display and entry to transmit of AOP major and minor axis is reversed. For example, receipt of 50x50 AOP, UB displays 56x56; it should be 46x46 since converting from 95% to 90%.
- Problem corrected: Couldn't delete track using Link Tracks window right mouse button menu when link is down.
- Problem corrected: Noticed that NOTACK track timelate does not dynamically change as the track gets older. Gave the track an age of 26 minutes and duration of 30 minutes to test for auto drop at 30 minutes. Time late never changed during the 4 minutes. It stayed at 26 minutes.
- Problem corrected: Going into the table, the initial value for Class for the ASW remote track was 0/NS. UB displayed blank vice NS.
- Problem corrected: Received an ESM track with a report source set to RDF. There is no field in the ESM Edit window to tell the operator what the value is. Subs do receive the field.

- Problem corrected: Status window doesn't work with multiple links.

2.3 Known Problems and Errors

- When Archive is selected from the Link-11 Status window (raw data window), the entire contents of File Selection are inoperable on Solaris™. On HP™ all radio buttons in the File Selection window are inoperable. The work around is to select a single line item in the Link activity window and select Archive from the Decoded Message window.
- Link Filter options within the Link-11 Status Window (raw data window) are not functional.
- Track Edit Next/Previous function is inoperable. Select several Link tracks and select EDIT from the Tracks pull down. The Link-11 Track Edit window appears, but the Previous/Next buttons do not work in this window. The work around is to select one track at a time.
- There is no ability to confirm deleting track-by-track when deleting a block of Link tracks, because there is no DELETE option in the Link-11 Track Edit window.

Workaround: When doing block deletes of link tracks, always answer NO to the prompt about confirming deletes individually.

- In the Link-11 Status window, occasionally an empty line will appear in the Link-11 activity window. This is normal. However, if the user selects this empty line, spurious data will in fact be present.

3.0 Installation Instructions

The Link-11 Segment, Version 2.2.2.0 is in standard GCCS segment format. For instructions on installing GCCS segments, see the *Unified Build System Administrator's Guide*, Segment Installer.

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